THE GROWTH IMPACT OF CAPITAL FLIGHT IN NIGERIA

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ABSTRACT

This study investigates the impact of capital flight on the economic growth in Nigeria over the period of 1980-2019 using annual time series data. The research employed the ordinary least square (OLS) analysis approach for estimation. The research findings showed that capital flight has significant negative impact on the growth rate (GDP) in Nigeria. It also revealed that gross capital formation (GCF) and foreign direct investment are variables influencing economic growth positively in Nigeria. Consequently, the study recommends the need for policies which stimulate growth and reduce flight of capital through deliberate and committed alliance of governments of all nations with anti-graft agencies to block avenues to launder money abroad. Also, there is need for sound domestic macroeconomic policy that will give investors the opportunities to operate in a conducive and profitable environment while government should take urgent and sustainable steps to improve security of life and property in Nigeria because insecurity is a threat to investment and business space that has been referred to as engine of growth.

1. INTRODUCTION

1.1 Background of the Study

The phenomenon of capital flight in developing nations like Nigeria has gained significant relevance due to its harmful impact on the development of their economies. It is generally

acknowledged that shortage of funds to finance economic development is a major challenge confronting African continent. As a result, many developing countries have resorted to external borrowing to bridge the saving- investment gap. Whereas, the problem of capital flight has been attributed to the foreign-debt problem of developing economies which in turns inhibiting developmental efforts intentions in the third world where it is rampant.

It is a paradox that countries suffering from inadequate resources still experience huge amount of funds siphoned abroad by politicians and other wealthy individuals. Generally, the term capital flight is laden with adverse connotations and necessitates efforts to checkmate it via policy reforms, such as capital controls because it impacts negatively on scarce capital, hence economic growth will be retarded. Actually, there are benefits and losses associated with capital flight but the losses far outweigh the benefits. Most analysts have attributed sluggish growth and persistent BOP deficit in most developing countries including Nigeria despite private transfers and long term capital flows to capital flights (Ajayi, 1995).

It has been established that capital flight is caused by so many factors such as speculation that one of the vehicle currencies will fall e.g dollars, unfriendly investment climate facing the local and foreign investors, repressive financial system, high inflation rate etc. Capital flight refers to all private capital outflows from developing countries be it short term or long term portfolio or equity investments (Oloyede, 2002). However, divergent views exist on what constitute capital flight and these are largely unsettled. Some analyst view it as a symptom of a sick society characterized by reduction in growth potentials, erosion of tax base, failure to recover from debt problems, redistribution of wealth from poorer to the richer social groups and breakdown of social cohesion. Others consider it as unnecessary pejorative description of natural, economically rational responses to the portfolio choices that have confronted the wealthy residents of some debtors' countries. Thus, the arguments make the concept more complex to define and given the present magnitude of Nigeria' external debt, the possible impact of capital flight on her debt-servicing capability, a review of the study on capital flight is appropriate at this time.

1.2. Statement of Problems

In most developing nations such as Nigeria characterized by foreign exchange shortages, chronic poverty and heavy debt burden, capital flight constitutes a large proportion of resources which are useful for financing economic growth and normalizing the adverse economic trends.

Taking Nigeria as a case study, large percentage of the people that engaged in capital flight are economic and political groups who seize the opportunity of their position to acquire both legal and illegal funds and siphoned such abroad. Such illegal funds consist of kick-backs on public

and private sectors' contracts, diversion of export revenue to private accounts. In addition, the outflow of capital can cause a shortage of liquidity in the economy and lead to the exertion of upward pressure on the interest rate, similarly the shortage of liquidity can cause a depreciation of domestic currency if the authorities are operating a floating exchange rate system. Therefore, capital flight in Nigeria is hindering growth and threatening economic development with negative consequences on the economy. It could also be seen as a threat to the growth prospects of the Nigerian economy. It has been argued that capital flight can affect the economy by hindering potential growth because it involves the exportation of savings and foreign exchange. In a country like Nigeria with low income, capital flight will weaken growth potential. Where capital flight exists, the country experiences macroeconomic instability. This instability manifests itself in a number of ways which include rise in budget deficits, increase in current account deficits, overvaluation of exchange rate, increase in inflation and declining terms of trade. As a result, this will lead to a contraction in economic activity and lack of opportunities for profitable investment in the domestic economy.

1.3. Objectives of the Study

The broad objective of the study is to examine the impact of capital flight on Nigerian economy. However, given the complex nature of capital flight and its severe impact on economic growth in Nigeria, the following research questions are relevant to the study:

i.   Does Capital flight has significant impact on economic growth in Nigeria?
ii.   Does Capital flight has significant impact on Gross capital formation in Nigeria?
iii. Is capital flight a threat to National solvency and economic growth in Nigeria?

The research hypotheses were formulated in line with the research objectives and research questions highlighted above.

2.0. LITERATURE REVIEW

2.1 Theoretical Literature

There are several economic theories on capital flight, the background of which is used to measure the impact of capital flight on the economic growth. We will look at some of the theoretical literatures as pointed out by Le & Rishi (2007), Skare & Sinkovic (2013), and Dim & Ezenekwe (2014) that appraised and/or criticize capital flight models. These theories include:

The Investment Diversion Theory

The investment diversion theory states that due to the macroeconomic and political uncertainties in developing countries, and the simultaneous existence of better investment opportunities in advanced countries like wide array of financial instruments, political and economic stability, secrecy of accounts, favourable tax climate, high foreign interest rate, some corrupt politicians and high net worth individuals divert the nation's capital to advanced countries. The motive for this diversion is either to earn higher returns, safe guard their investments from instability, diversify assets or enjoy confidentiality. As a result, these capital resources are not available for investment at home nations thereby widening the savings gap, constraining aggregate investment and dampen economic growth. The investment diversion theory postulates negative impact of capital flight in the nations involved.

The Debt Driven Capital Flight Theory

This is the continuation of the investment diversion theory. This thesis postulates that given the huge external debt of a country, residents are motivated to move their resources outside the country to foreign nations. Borrowed fund is sold to domestic economic agents who transfer these funds partly or completely abroad. This thesis suggests that external debt is a root cause of capital flight which reduces the incentive save and invest in the home country. The assumption is that with heavy foreign debt, there are expectation of exchange rate devaluation and fiscal crisis. Therefore, capital flight leads to poor growth, which calls for the necessity to borrow in order to promote growth and further borrowing promotes capital flight and this continue in cycle.

The Austerity Theory

This theory suggests that the poor are in severe indebtedness as a result of capital flight. This is because they suffer more due to the austerity measures by the government to service its debts obligations to international banks. Also, the tax pay by the poor is insignificant which constraint the government to have enough resource to promote growth and development with poverty alleviation. As a result, a vicious circle of external debt, capital flight, poor growth, poverty and external debt is created.

The Tax-Depressing Theory

It suggests that capital flight creates potential revenue loss due to wealth held abroad are outside the control of the domestic government. As a result, they capital cannot be taxed. The fall in government revenue complicated the task of political-economic engineering to promote economic growth. Thus, a direct impact of capital flight is the potential dwindling revenue generation of government.

2.2 Conceptual Framework

Over recent years, the deteriorating impact of capital flight on economic growth and development has received steadily increasing attention from researchers, economists, analysts and policy makers especially in the third world. In the literature, there have been controversies on the term capital flight due to the various notions held about the term. For instance, Epstein G. et al (2005),defined capital flight as the transfer of assets in foreign country with the motive of reducing loss of principal, loss of return or loss of control of one's financial wealth owing to government-approved activities. It is considered to consist of international capital flow that is aimed at avoiding government controls or the results of government action.

While Morgan Guaranty Trust Company (1986), defined capital flight as involving given report and not reported acquisition of foreign assets by non-bank private sector and members of the public sector. According to Cuddington (1986), the concept of capital flight is short term capital outflows made up of hot money which responds to political or financial crises, unfavorable taxes, an expected adverse capital control or domestic currency devaluation and possible rising hyperinflation. Thalasa (2010) view capital flight from the angle of human capital, the author described it as a major contributor to manpower deficiency that inhibits development. As a result, they see it as the problem of lack of growth in the developing economies.

Capital flight has been argued to stem from many factors classified into political and economic factors (Ajayi, 1992). The author argued that the political aspect is often ignored in most analysis on capital flight and said this is predicated on corruption and access to foreign funds by political leaders. A large number of the studies on capital flight have been conducted, pointed out its effect, countries on which data have been used, measured used in determining the extent and the estimation techniques used. Most of the studies focused on Latin America countries because of the massive outflows these countries experienced during the 1980's. In many of the studies, capital inflow variables are taken into consideration and are split into two or more forms of inflows while some focus on investigating the impact of long-term versus short-term foreign debt. Hermes et al (2002), explained that in most studies, debt inflows (especially long term) had a statistically significant influence on capital flight while some studies supported that development aid can be used for financing capital flight.

With respect to Macro-economic instability, one or more variables such as exchange rate over-valuation, government deficit, inflation rate and current account deficit appear in almost all studies especially measure of the degree of exchange rate over -valuation. Thus, macro-

economic instability causes capital flight as the specification variables measuring the extent of macro-economic instability are statistically significant and positively related to capital flight.

Few studies measure political instability as an effect of capital flight, using several kinds of measure, different dummy variables that proxy for the degree of democracy of a country. Other studies used direct measures of political instability such as the number of assassinations and revolts. In general, the result of the empirical studies agreed that political instability measured in various ways is positively related to capital flight. In a number of studies, particularly in the early attempts to investigate the phenomenon, estimates have been carried out using individual country data. The major studies conducted for Africa include: Ajayi (1992), (1995) and Onwioduokit (2001). For Nigeria, they include; Obidike et al (2015), Samson Bredino et al (2018), Awung (1995).

Similarly, Samson Bredino et al (2018), in their research findings on the impact of Capital Flight on economic growth in Nigeria, showed that capital flight have adverse impact on GDP while exchange rate impacts positively on GDP which is in consonance with apriori expectation. As a result, they recommended restrictions on external borrowing tendencies on all level of governments and agencies as well as private sector organizations and that government should maintain a competitive and stable exchange rate policy.

As confidence in governments has been eroded, the perceived risk of domestic assets risen and residents have sought to diversify through investing abroad. While this continues still at the core of the problem, the author also looked at several other explanations of the problem, for example continuing policy distortions, debt overhang and uncertainty over debt negotiations. According to the authors, large capital flows out of developing countries have provided ample evidence of high capital mobility between Less Developed Countries (LDCs) and the outside world and of private capital's strong responsiveness to changed in both domestic and foreign economic incentives. They also hold the view that because LDC governments largely ignored capital mobility and allowed policy distortions to persist, capital flight continued until external credit was denied and some corrective measures were undertaken. They concluded that the price LDCs paid for capital flight was already high. They argued further that massive foreign lending played instrumental role in facilitating private capital outflows and that the deeper roots of capital flight is traceable to the economic disincentives created by domestic policy distortions.

Shortcomings of Past Estimates

It is observed that past studies on capital flight have taken into account the effect of exchange rate fluctuations of the dollar value in deriving residual measures of capital flight. Depending on

whether these currencies depreciate or appreciate against the dollar , this can introduce a downward or upward bias in relevant countries where a substantial portion of the debt is denominated in other currencies as in the francophone countries of Sub-Sahara African.

Secondly, past studies of capital flight from Sub-Sahara Africa except Chang and Cumby (1991) and Ajayi (1992) cover a small number of countries. As a result, they do not offer a basis for expansive cross-country analysis of the magnitude, causes and consequence of capital flight. Those that cover a large sample only refer to a fairly short time period which limits the ability to examine the trends in capital flight over long time frame. For time series analysis, it would be useful to have estimated capital flight for a good number of years.

Thirdly, many past estimates ignored analysis on falsification of trade transaction. Exception is given to Chang and Cumby (1991), and Ajayi (1997), Ndikuma and Boyce (1998). Instead, they take trade statistics unlike capital account statistics in official Balance of payments table at the face value. In practice, the official BOP data on exports and imports are often of poor quality due to trade mis-invoicing i.e exporter may understate the value of the export revenue with the intention of retaining abroad the difference between their actual export value and declared exports value. On the import, there are incentives for both over-invoicing and under-invoicing. Over invoicing allows importers to obtain extra foreign exchange which can be transferred abroad from the Central Bank of Nigeria on favourable term, while under-invoicing and outright smuggling allows importers to evade custom duties and restrictions. Thus, this weakness suggests that caution should be taken in the interpretation of the regression results due to the problems inherent in determining the determinants of the estimated capital flight.

Capital flight is rather a controversial concept: several interpretations have been given of what exactly is the term. Usually, capital flight is related to the existence of high uncertainty and risk in relation to returns on domestically held assets. It is sometime argued that capital outflows based on these considerations should be viewed as abnormal and should therefore distinguished from normal capital outflows since normal outflows are based on consideration of portfolio diversification of residents or activities of domestic commercial banks aiming at acquiring foreign deposits holdings. Yet, when measuring capital flight, empirically, it appears difficult to distinguish between normal and abnormal capital outflows.

Foreign Lending and Capital Outflows

The estimates of Gajdeczka and Oks (1990) shows a very strong correlation between capital outflows and foreign lending. However, they believe that this high correlation does not necessarily reveal conclusive causality linkage in either direction. They argued that the nature of

the relationship between net lending and capital flight has changed overtime. They also discussed the relationship between net lending and capital flight in the context of risk asymmetries and scarce investment opportunities in developing countries.

2.3 Causes of Capital Flight

In most less developed countries, as the case of Nigeria, a lot of factors are responsible for capital flight. Ajayi (1992), explained that it could generally be due to a response to abnormal situations arising from domestic macroeconomic policy errors couple in some cases with political instability. Therefore, the various causes can be grouped under relative risks, exchange rate misalignment, financial sector constraints, fiscal deficits and external incentives, Khan (1989). These are macroeconomic causes of capital flight. The non-economic causes include corruption of political leaders and the extra ordinary access to government funds. Some of these factors are now discussed.

Risks

In decision-making process, the wealthy investors look at the various risks confronting them. There are certain inherent characteristics of developing nations, which makes risks attached to investments larger than those of developed nations. An increase in risk in a rational expectation setting would tend to increase the outflow of private capital from the domestic economy into foreign countries where investments are less risky. Thus, domestic investors will prefer to transfer funds and hold foreign assets.

Financial Sectors Constraints

This can also lead to capital flight. It is well known that narrowness of the capital and money market is a feature of developing economies. Financial market in this country provides only a limited variety of financial instruments in which wealth can be held at home. On this note, one will agree with Iweala (2006) "capital flight is due to lack of appropriate financing vehicles for domestic investors. Improved investments, instruments at home could reduce the incidence of capital flight".

Furthermore, there is a lack of credible deposit insurance on assets that are held in domestic banking sectors. Additionally, there are excessive controls on interest rates. Government policies in financial sectors have resulted in nominal interest rate that are far below the rates on comparable foreign financial instruments. In most cases, the real interest rates on domestic assets are negative.

External Incentives

The external influences are the form of opportunities available outside the country. This include the attractiveness of foreign interest rate, the wide array of financial instruments in which wealth can be held, political and economic stability, favorable tax climate etc. these sets of incentives is suitably described by Walter (1987): "Flight implies havens and havens takes the form of national status that provide an attractive range of real and financial assets to foreign based investors, political and economic stability, a favorable tax climate for non-residence and various of the attributes that generally are of the obverse of conditions triggering capital flight in the first place". Thus, external incentives are potential factors that encourage capital flight from domestic economy.

4.4 Effects of Capital Flight

As observed from various studies on capital flight, it deserves serious attention for many reasons. Oloyede (2002) classified the effects into both short term i.e a sudden increase in the outflow of capital can have destabilizing effects on domestic reserve position and a long term which include a reduction in available resource to finance domestic investment, leading to a decline in the rate of capital formation and adversely affecting the countries growth rate; reduction in government ability to tax all the income of its residents and increase the need to borrow from abroad thereby increasing the foreign debt burden.

Other effects of capital flight are include pronounced regressive effects on the distribution of wealth. The individuals who engaged in capital flight generally are members of the subcontinents economic and political elites who take advantage of their privilege position to acquire and siphoned funds abroad. Both the acquisition and transfer of funds often involves legally questionable practices including the falsification of trade documents (Trade mis invoicing). The negative effects of the resulting shortage of revenue and foreign exchange fall directly on shoulders of the less wealthy members of the society. The regressive impact of capital flight is worsened when financial imbalances result in devaluation. Also, capital flight constitutes a diversion of scarce resources away from domestic investment and other productive activities. As a result, the outflow of capital can cause a shortage of liquidity in the economy and thereby create a short fall in the amount of funds that are needed for the importation of equipment which are needed for development. According to Deppler and Williamson (1987), capital flight leads to a net loss in the total resources which are available to an economy for the purpose of investments and growth. Therefore, the pace of growth and development in the economy is retarded from what it would have otherwise been.

4.5 Gaps Analysis in Literatures

The review of some of the literatures on the concept of capital flight and its impact on economic growth in Nigeria shows following gaps: One important gap is the need to re-evaluate the older results using updated data set because the set of data used by most literatures were not recent. Thus, the study intends to fill this gap by using annual time series data between 1980 and 2019 to revalidate the older results. Also, there is problem with the estimation of capital flight figure in relation to the use of changes in stock of external debt. Most studies did not consider the effect of debt forgiveness in the estimation. As a result, a gap has been created which this study seeks to fill.

3.0 RESEARCH METHODOLOGY

3.1 Research Design

Data used in this study are mainly secondary. The study covered 39 years (1980-2019). Regression is employed in the analysis of time series data. The model specified for this study thus focus on the impact of capital flight on economic growth in Nigeria. Capital flight is computed here using residual approach.

The apriori expectations of the models built are as follows:

Gross Domestic Product (GDP)

The apriori expectation is negatively related and can be represented mathematically

$\partial GDP/\partial ICF < 0$

Gross Capital Formation (GCF)

The apriori expectation is negatively related and can be represented mathematically

$\partial GCF/\partial ICF < 0$

Foreign Direct Investment (FDI)

The apriori expectation is positively related and can be represented mathematically

$\partial GDP/\partial IFDI > 0$

The test of hypothesis for each of the parameters of the econometric models is caried out using the standard error test, OLS, while the Augument Dickey Fuller test (ADF) is used for determining the stationarity in the series.

3.2 Model Specification

The study adopt the residual approach to capital flight as formulated by World Bank (1985) and Erbe (1986) for a period of thirty-nine years (1980 to 2019).

Thus, the model is specified as follows:
$$CF\ (WB) = \Delta\ EXDEBT + FI - CAB - \Delta\ OFFRE$$
Where:

CF (WB)	= Capital flight, world bank version
ΔEXDEBT	= Change in external debt
FI	= Foreign investment
CAB	= Current account balance
OFFRE	= Increase in official reserves

Note: Positive values of CF (WB) represent capital flight while negative values represent capital outflows. From the equation above, the index of capital flight for each of the year under review (1980-2019) will be derived.

Time series data was used for the analysis. The secondary data was be obtained from publications such as World Bank Digest of Statistics, Central Bank of Nigeria Statistical Bulletin and Annual Abstract of Statistic of the National Bureau of Statistics (NBS), Nigeria.

4.0 DATA ANALYSIS AND INTERPRETATION

4.1. Descriptive data of the variables

The empirical section begins by analyzing the summary statistics of all the variables in the model. The summary statistics are presented in table 4.1 below:

Table 4.1: Descriptive data of the variables

	GDP	GCF	FORG_INV	EXD	CAP__FLIG
Mean	5.616250	1.197750	2.736500	0.502875	1.013250
Median	5.565000	1.170000	2.300000	0.961500	0.000000
Maximum	6.330000	1.960000	10.80000	7.507000	3.810000
Minimum	5.040000	0.910000	0.200000	-24.68600	0.000000
Std. Dev.	0.309737	0.212319	2.238940	5.015042	1.591534
Skewness	0.365612	2.026252	1.797336	-3.286538	0.948962
Kurtosis	2.644675	7.908303	6.528734	17.28493	1.963867
Jarque-Bera	1.101576	67.52372	42.28939	412.1075	7.792811
Probability	0.576495	0.000000	0.000000	0.000000	0.020315
Sum	224.6500	47.91000	109.4600	20.11500	40.53000
Sum Sq. Dev.	3.741538	1.758098	195.5013	980.8751	98.78628
Observations	40	40	40	40	40

Source: *Results obtained from data analysis using the E-Views statistical software package*

Table 4.1 shows the summary of descriptive statistics of the variables included in the model. It shows the existence of wide variations in the variables as depicted by the mean values during the study period. The analysis carried out in the above table shows that the standard deviation of the external debt has been high. This depicts a high degree of volatility in the external debt during the period under investigation. The analysis was also fortified by the value of the skewness and kurtosis of all the variables involved in the model. None of the distributions is negatively skewed. This implies that all the variables (Gross domestic products, Gross capital formation, foreign investment, external debt and capital flight) are positively skewed. Variables with value of kurtosis less than three are called platykurtic (fat or short-tailed) and Gross domestic products and capital flight qualified for this during the study period. On the other hand, variables whose kurtosis value is greater than three are called leptokurtic (slim or long tailed) and Gross capital

formation, external debt and foreign investment qualified for this during the study period. Jarque-Bera test shows that the residuals are all the variables are normally distributed. In summary, the descriptive statistics revealed that most of the data sets are normally distributed. This is so because the probability values of most of the variables do not exceed 5% with the exception of GDP.

4.2 Unit Root Tests

To determine the order of integration of these variables, the Augmented Dickey Fuller (ADF) unit root test has been carried out on levels and differences of the relevant variables. The specification of the ADF equation assumes intercept and no trend. The null hypothesis underlying unit root testing is that the variable under investigation has a unit root and the alternative is that it does not.

Table 4.2: Unit Root Test (Variable in the Level)

Variables	ADF	Critical Values	Order of Integration
D(LOGCAP_FLIG)	-6.678296	-2.941145*	I (1)
D(LOGEXD)	-8.855559	-2.941145*	I (1)
D(LOGFORG_INV)	-8.638349	-2.941145*	I (1)
D(LOGGCF)	-7.529374	-2.943427*	I (1)
D(LOGGDP)	-6.430583	-2.943427*	I (1)

*Note: * Indicates stationary at the 1% level, and ** Indicates stationary at 5% level.*

Source: Computed from E-view 9.0. 2022

The ADF unit root results are reported in table 4.2 above. The results show that not all the variables have unit root at levels but are stationary at first differences, implying that they are integrated of the same order. At first difference, all the variables; Gross domestic products, Gross capital formation, foreign investment, external debt and capital flight were stationary since their ADF Test Statistics. Thus, the series are stationary and integrated of order one, I(I). However, following Harris (1995) and Gujarati (2009), both I (1) and I (0) variables could be carried forward to test for co-integration which forms the basis of the next section.

The Johansen co-integration test was used to test for the existence or not of a long-run relationship among the variables. The Johansen methodology was preferable for the study because it has the advantage amongst others of allowing for more than one co-integrating vector. The result of the Johansen co-integration test is shown in table 4.3 below:

Table 4.3 Johansen co-integration

Sample (adjusted): 1982 2019

Included observations: 38 after adjustments

Trend assumption: Linear deterministic trend

Series: GDP GCF FORG_INV EXD CAP__FLIG

Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.483847	59.60599	69.81889	0.0477
At most 1 *	0.357523	34.47465	47.85613	0.0261
At most 2	0.288081	17.66255	29.79707	0.5911
At most 3	0.109513	4.750506	15.49471	0.8347
At most 4	0.008986	0.343003	3.841466	0.5581

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Note: r represents number of co-integrating vectors and k represents the number of lags in the unrestricted VAR model. * denotes rejection of null hypothesis at the 5% (1%) level

Table 4.3 above highlights the effects of the Johansen co-integration test. The findings illustrate the existence of one (1) co-integrating equation at a 5% level of significance. It implies that the probability ratio is higher than critical values at 5%. It reveals that there is a long-run relationship between capital flight and all the explanatory variables.

4.3 Graphical Presentation of all data

A graphical plot of the time series is represented in figure 1 below. It tests the stationarity of the time series used in the research. It was observed that the variables trended toward varying degrees of fluctuation. This is shown graphically, and it indicates the non-stationarity of the variable.

Figure 1: Graphical Presentation of all data

4.4 Test of Hypotheses

Table 4.4: Regression Analysis showing relationship between Capital Flight and Nigerian Economy

Dependent Variable: GDP

Method: Least Squares

Sample: 1980 2019

Included observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GCF	0.057979	0.195132	0.297127	0.7681
FORG_INV	-0.050419	0.019180	-2.628779	0.0126
EXD	2.96E-05	0.008362	0.003541	0.9972
CAP__FLIG	-0.120635	0.026149	-4.613451	0.0001
C	5.806995	0.255696	22.71055	0.0000

R-squared	0.625545	Mean dependent var		5.616250
Adjusted R-squared	0.559893	S.D. dependent var		0.309737
S.E. of regression	0.247810	Akaike info criterion		0.164161
Sum squared resid	2.149345	Schwarz criterion		0.375271
Log likelihood	1.716786	Hannan-Quinn criter.		0.240491
F-statistic	6.481829	Durbin-Watson stat		1.366673
Prob(F-statistic)	0.000517			

Source: Researcher's computation, 2022.

The results presented in Table 4.4 show that foreign investment, and capital flight are statistically significant at 5% level influencing Nigerian economy. The data revealed that the t-statistics is significant at 5%. ($p<0.05$). This indicates that the capital flight (t=--4.613451 p=0.0001<0.05), and foreign investment (t=-2.628779 p=0.0126<0.05) contributed significantly to the Nigerian economy during the period under consideration. In the same vein, the value of R-square and the adjusted R indicates the explanatory power of the independent variables. This means the variables included in the model accounted for about 0.63 or 63% variation in the dependent variables. This was considered high enough to determine the statistical significance of the coefficient of determination. The F-statistics also indicates that the model is well fit for the estimation because F statistics value of 6.48 is significant at 5% (p=0.00). Also, the Durbin Watson statistics value of 1.37 indicates no autocorrelation and thus the model is conclusive.

Test of Hypothesis one

The coefficient of capital flight from model estimation is -0.12. This indicates a negative relationship such that a unit increase in capital flight is expected to bring about a 12 percent decrease in the economic growth in Nigeria. However, the t-statistics is -4.613451 with a probability value of 0.0001. Since the p-value is less than 0.05 level of significance we reject the null hypothesis that "Capital flight has no significant impact on economic growth in Nigeria" and therefore concluded that capital flight has significant impact on economic growth in Nigeria.

Test of Hypothesis Two

Table 4.5 Pairwise Granger Causality Tests

Sample: 1980 2019

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
GCF does not Granger Cause GDP	38	0.20478	0.8159
GDP does not Granger Cause GCF		1.94859	0.1585

FORG_INV does not Granger Cause GDP	38	0.06767	0.9347
GDP does not Granger Cause FORG_INV		0.85097	0.4362
EXD does not Granger Cause GDP	38	0.25678	0.7751
GDP does not Granger Cause EXD		0.46111	0.6346
CAP__FLIG does not Granger Cause GDP	38	0.97610	0.3874
GDP does not Granger Cause CAP__FLIG		1.51046	0.2357
FORG_INV does not Granger Cause GCF	38	1.30954	0.2836
GCF does not Granger Cause FORG_INV		0.41945	0.6609
EXD does not Granger Cause GCF	38	0.35643	0.7028
GCF does not Granger Cause EXD		1.76235	0.1874
CAP__FLIG does not Granger Cause GCF	38	0.34256	0.7124
GCF does not Granger Cause CAP__FLIG		0.59201	0.5590
EXD does not Granger Cause FORG_INV	38	0.41843	0.6615
FORG_INV does not Granger Cause EXD		1.06100	0.3576
CAP__FLIG does not Granger Cause FORG_INV	38	3.33068	0.0481
FORG_INV does not Granger Cause CAP__FLIG		0.00809	0.9919
CAP__FLIG does not Granger Cause EXD	38	1.68966	0.2002
EXD does not Granger Cause CAP__FLIG		0.17592	0.8395

Source: Researcher's computation, 2022.

Table 4.5 shows the findings of the Granger Causality tests of non-cointegrating variables. A detailed examination of these results shows that a unidirectional causality does not exists from capital flight to gross capital formation in Nigeria at a 5% level of significance. These causality relationships and the dominance of capital flight support the findings that capital flight has no significant impact on gross capital formation in Nigeria.

Test of Hypothesis Three

Table 4.5 shows the findings of the Granger Causality tests of non-cointegrating variables. A detailed examination of these results shows that a unidirectional causality does not exists from capital flight to external debt in Nigeria at a 5% level of significance. These causality relationships and the dominance of capital flight support the findings that capital flight has no significant impact on National solvency and economic growth in Nigeria.

4.5 Discussion of Findings

Capital flight has significant impact on economic growth in Nigeria during the period under consideration. This indicates that Nigeria among other African countries has been a victim of massive capital outflow to other developed nations. Thus, this study investigated the impact of capital flight on economic growth in Nigeria. The negative effect showed that capital flight significantly decreases economic growth in both short run and long run. This result is in line with the submissions of Orji, Jonathan, Kama, and Onyinye (2020) but contradicts those of De Boyrie (2011).

Capital flight has no significant impact on Gross capital formation in Nigeria during the period under consideration. This implies that capital flight is significant in impacting gross capital formation in Nigeria in the long run. This is not properly acknowledged because high domestic investment is supposed to expand economic growth and reduce capital flight. Ordinarily, GCF is a representation of the development of finance in fixed capital and other tangible infrastructures that will control the capital outflow. This result agrees with the study of Igwemma, Egbulonu and Assumpta (2018) who analyzed the responsiveness of the Nigerian economy to capital outflows from the country between 1986 and 2016.

Capital flight significantly pose a threat to National solvency and economic growth in Nigeria during the period under consideration. The effect of the Ordinary Least Square determines that a percent change in capital flight will impede economic growth by 12% consequently; capital flight has significantly feigned intimidation to economic growth.

5. CONCLUSION AND RECOMMENDATIONS

The study showed that the capital flight, foreign direct investment, and gross capital formation are the influencing variables that lead to the economic growth of Nigeria at a 5% level of significance in the long run; hence the long run results can be used to predict the effect of Capital flight on the economic growth of Nigeria in the long run with a speed of adjustment of 63% annually. The adjusted R-squared of 63% shows a good fit of the model. It is therefore concluded that the capital flight, foreign direct investment and gross capital formation have a significant effect on the economic growth of the Nigerian economy in the long run. In summing up, capital flight and some of its segments analyzed in this research collectively influenced economic growth in Nigeria in the long run. The research resolves that capital flight was significant in influencing economic growth in Nigeria. It was also found out that the same result was obtained in the long-run estimates. Consequently, it avails to conclude that capital flight influenced the economic growth in Nigeria negatively across the period covered by this study. Based on the above observations and conclusions, it is recommended that:

(i) Proactive policy standards will curtail capital flight and make the economy competitive and attractive for domestic investment that enhances economic growth therefore, expansionary monetary policy should also be utilized.

(ii) Government should guarantee that the Nigerian business environment is empty of insurgency and secure the provision of basic economic comforts and sound economic policies that would attract foreign investors to come into Nigeria and invest. Those good policies would make the foreign investors still keep the proceeds of their investments here since the business environment is stable and conducive for them instead of taking them back to more advanced countries.

(iii)The government of Nigeria should come up with strategies that would reduce the volume of capital flight out from Nigeria, they should also implement empowering and the favorable environment through the formulation of good economic strategies that would prompt investors to manage their capital here in the Nigerian economy instead of repatriating them abroad.

REFERENCES

Ajadi, F. S. (2008). Econometric Analysis of Capital Flight in Developing Countries. *8th Global Conference on Business & Economics*. Florence, Italy Oct. 18-19.

Ajayi S. Ibi (1992). An Economic Analysis of Capital Flight from Nigeria, World Bank Paper, *West African Monetary Institute*, Accra, Ghana.

Ajayi S. Ibi (1995). Capital Flight and External Debt in Nigeria. *Research paper* No. 35, Nairobi.

Ajayi S. I. (2000). Capital flight and External Debt in Nigeria. In S. I. Ajayi & S. K. Mohsin (Ed.), External debt and capital flight in Sub-Sahara Africa, *International Monetary Fund*. Chap. 7.

Awung, S.R., (1995) in David Umoru (2013): Capital Flight and Nigeria Economy. European Journal of Business and Management, 5(4), 40-50

Bakare O.M (2006). Taxation avoidance, Capital Flight and Poverty in Nigeria. https://www.jstor.org

Cuddington, J. T. (1986). Capital Flight: Estimates, issues, and explanations. *Princeton Studies in International Finance*. 58.

De Boyrie, T. (2011). Macroeconomic determinants of capital flight: An econometric investigation. *Capital flight and third world debt. Washington DC: Institute for International Economics*.

Deppler, M. and Williamson, M. (1987). Capital Flight: Concept, Measurement, and Issues. *In Staff Studies for the World Economic Outlook*. International Monetary Fund, Washington.

Dim, C., & Ezenekwe, U. (2014). Capital Flight to Savings Gap in Nigeria: An Assessment of the Socio-Economic Determinants. International Journal of Economics and Finance, 6(2), 75.

Gadjeczka, P., & Daniel Oks (1990). "Measurement of Capital Flight and Developing Country Foreign Assets," *presented at the workshop entitled Net External Asset Positions, in Kiel* (March 1990).

Gujarati N. D. (2004). Basic Econometrics. New Delhi, Tata McGraw-Hill publishing 4th Edition.

Igwemma, A., Egbulonu, K, Assumpta, N. (2018). Capital Flight and the Nigerian Economy (1986-2016), *International Journal of Development and Economic Sustainability, 6*(4): 11-28.

Khan, M. (1989). Flight of Capital From Pakistan. Pakistan and Gulf Economist, 21–27

Le, Q.V. & M. Rishi. 2006. "Corruption and capital flight: An empirical assessment". International Economic Journal, 20(4), 523–40

Morgan Guaranty Trust Company (1986). LDC Capital Flight. *World Financial Markets*. 2:136.

Obidike, P. C; Uma, K. E; Odionye, J. C and Ogwuru, H.O.R (2015). The Impact of Capital Flight on Economic Development: Nigeria in Focus. British Journal of Economics, Management & Trade 10(3), 1-13, Article no.BJEMT.20122

Oloyede Bayo (2002). Principles of International Finance. Forthright publishers,Lagos. 160 -164.

Onwioduokit, E. (2001). Capital Flight from Nigeria: An empirical re-examination. *Paper presented at Wider Development Conference on Debt Relief*, Helsinki, Finland, 17-18 August.

Orji, A., Jonathan, E., Kama, K., & Onyinye, I. (2020). Capital Flight and Economic Growth in Nigeria: A New Evidence from ARDL Approach. *Asian Development Policy Review*, *8*(3), 171-184.

Samson Bredino et al (2018). Impact of Capital Flight on Economic Growth in Nigeria: An Econometric Approach. *Journal of Business & Economic development, 3*, No 1.

Skare, M., & Sinković, D. (2013). The role of equipment investments in economic growth: a co-integration analysis. International Journal of Economic Policy in Emerging Economies, 6(1), 29–46.

Thalasa, B. A.(2013). Brain Drain. StudyMode.com; Available at http://www.studymode.com/essa ys/Brain-Drain-452987.

Walter, I. (1987). The mechanisms of capital flight. Donald R. Lessard and J. Williamson, Capital Flight and Third World Debt. Washington, DC: Institute for International Economics.